

postoral pairs of limbs of the short stout cephalothorax. Respiration by branchiæ or tracheæ, sometimes leaflet-tracheæ.

Series III. (ONYCHOPHORA, MYRIOPODA, INSECTA.)—With an anterior pair of antennæ (representing the frontal tentacles of the Annelida) and a pair of mandibles (? representing the limbs of the first or second body-segment). Tracheal respiration.—*Anzeiger der kais. Akad. d. Wiss. in Wien*, December 17, 1885, pp. 250–253.

*Virulence of the Common Parsnip.*

Mr. Meehan referred to the deaths of some children at Danville, Pa., in the spring of 1884, reputed to be caused by eating the roots of the wild parsnip. This was usually understood to mean the roots of *Cicuta maculata* or, perhaps, *Conium maculatum*. Roots had been sent to him by the attendant physician among which was the fragment of a portion that one of the dead children had partially eaten, with teeth-marks on the remains. There seemed no chance of error in this case. The root, which was evidently neither of the two reputed to be virulent, was planted. It proved to be the true garden parsnip, *Pastinaca sativa*, which has become an escape from gardens in many parts of the United States. Although the evidence that the deaths were from the wild roots of the common garden parsnip appeared so conclusive, in view of the fact that there seems to be no record of such a virulent character in connexion with this plant, it was thought possible there might still be some mistake, and corroborative evidence was sought for. It was found that in the cultivated form some growers are careful about weeding or working among the leaves while the dew is on them, as severe cases of poisoning have been known to result; and on large seed-farms the workmen engaged in cutting the stalks at the seed-harvest have to protect their hands and arms against contact with the juices, or they are liable to be severely poisoned in a manner similar to that from the poison-vine, *Rhus toxicodendron*. With these facts it seems worth placing on record what seems to be indisputable, that the deaths of the Danville children was really caused by the wild garden parsnip, *Pastinaca sativa*.—*Proc. Acad. Nat. Sci. Philad.* 1885, p. 383.

*Freshwater Sponges from Mexico.* By EDWARD POTTS.

*Meyenia plumosa*, Carter, var. *Palmeri*, n. var.

Sponge (as seen in a dry state) dark brown, massive, attached to and surrounding the dependent branches of small trees, whose stems are flooded by the spring freshets. Texture very loose, and when dry so brittle that the dermal surface cannot be satisfactorily examined. (The impression conveyed by the interior appearance of this sponge is that it is made up of an infinite number of radiating confluent branches.)

Gemmulæ large, numerous throughout the deeper portions of the sponge; subspherical or ovoid, surrounded by long birotulates imbedded in a granular crust.

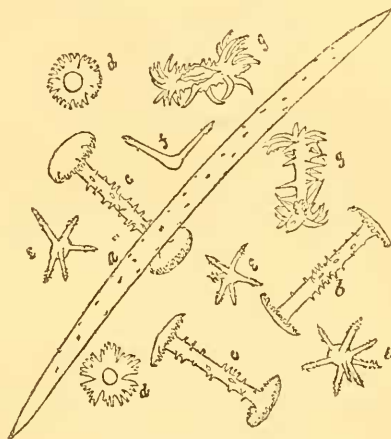
Skeleton-spicules straight or slightly curved, mainly cylindrical, but gradually sharp-pointed, sparsely microspined.

Dermal spicules irregularly stellate, as in the typical species, but in the specimens examined much fewer in number. They vary from simple acerates with one or more long divergent branches to beautiful radiate spherical bodies whose rays are nearly equal, spined, and capitate by reason of recurved spines at their extremities. Another form of spicule, probably also dermal, of which several are seen upon nearly every slide prepared for microscopic examination, is very difficult of description. It may be said to be composed of an irregular series of smooth curved rays arising from a nearly common centre, and is somewhat suggestive of a hedgehog or Scotch terrier.

Birotulate spicules pertaining to the gemmule, in length about three times the diameter of the supported rotules; shafts cylindrical, plentifully spined; spines long, conical. Outer surface of rotules convex, margins lacinate; ends of incomplete rays obtuse, recurved.

Sponge-masses subspherical, reaching 5 or 6 inches in diameter.

The woodcut represents: *a*, skeleton-spicules; *b*, *c*, *c*, birotulate spicules of the gemmule; *d*, *d*, ends or rotules of the same; *e*, *e*, *e*, *f*, dermal spicules; *g*, *g*, abnormal forms frequently observed. The spicules are magnified 200 diameters.



This sponge, collected by Dr. Edward Palmer along the banks of the Colorado River, near Lerdo, Sonora, in North-western Mexico, about 59 miles S.S.W. from Fort Yuma, California, is a valuable addition to the sponge fauna of this continent, and interesting from the fact that the typical species, *M. plumosa* of Carter, has heretofore only been found in his original locality, the rock water-tanks of Bombay, East Indies. That it should skip a whole hemisphere and only be found the second time at its own antipodes is indeed remarkable.

The lower reaches of the Colorado of the West extend for miles through a region described by the collector as the "hottest, driest, and most barren in the United States," whose "vegetation consists of mesquit, cacti, and the screw-bean, *Strombocarpus pubescens*." Its normal border-lands are known as the "first" and "second" "bottoms," of which the latter is the higher and, of course, more distant from the channel. By the frequent changes in its bed, however, the river cuts through these, and, washing away the one and filling up the other, reverses their physical conditions. Upon the

“second bottoms” then, said to be only reached to any considerable depth by the annual floods occurring during parts of May and June, and not to continue flooded more than six weeks at a time, the screw-bean abounds. It is described as a small tree of the general appearance of a peach-tree, but with more slender drooping branches. More or less of an alkaline deposit whitens the ground upon which they grow, and the approaching traveller is puzzled to see in strong contrast with it hundreds, or even thousands, of dark masses, “like wasps’ nests,” suspended two or three feet above.

It was this conundrum that confronted Dr. Palmer during his recent visit, and the answer we have is in the sponge before us. From the Amazon River in the tropics to the waters of Maine and Nova Scotia in the temperate regions of the north sponges have long been known to affect the pendent branches of stream-bordering bushes; but it is unlikely that they have ever before been observed in such quantities suspended for nine or ten months of the year over land parched and desolate.

On referring to Mr. Carter’s earlier descriptions of his discoveries, we find that, though he collected this species on two or more occasions, the fragments were always found detached from their place of growth and floating upon the surface in the water-tanks referred to about one month after the rainy season had commenced. He believed that the vitality of the gemmules was preserved during the dry season notwithstanding their exposure to the sun and desiccating winds, and that their germination after the water had again reached them was followed by a very rapid growth of new sponge. This would seem to have been the case also with the present variety, as, according to the reports of the collector, the masses could not have been submerged for a greater period than six weeks in any one year. Whether the whole bulk as now seen was attained during a single season or is the cumulative result of several annual growths of the persistent masses cannot now be determined.

It is worthy of notice that *M. plumosa* and this variety, v. *Palmeri*, differ from all other known freshwater sponges by the presence in them of a compound or substellate dermal spicule. The spicules of the dermis throughout the group are generally minute spined acrates; in *M. Everetti*, Mills, we find them as minute birotulates. In *this* species the two forms seem to be combined; the spines have become central and prolonged, while their capitate extremities suggest the rotules of the last-named species.

Of the six sponge-masses from the above locality, sent by the Smithsonian Institution for examination, the smallest was somewhat fusiform in shape, and proved to belong to a different species—*Meyenia crateriformis*, Potts—heretofore found along the eastern border of the United States. In it alone the mass was not darkened by the presence of some pervading vegetable parasite.—*Proc. U. S. Nat. Mus.* 1885, p. 587.